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[19] The Patent Bureau of the People's Republic of China

[12] Practical new patent manual

[21] ZL patent number 96206657.5

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Rights application 1 page, manual 2 pages, Attached drawing 1 page

[64] Practical new product name: Motor car tungsten filament double-layered rear window

[57] Abstract

This practical new product is a type of motor car electrothermal demist tungsten filament double-layered rear window. It consists of a piece of inner glass (1), a piece of outer glass (2), a bonding membrane (3) and an electrothermal layer. The electrothermal layer is positioned between the inner glass and the bonding membrane. It consists of a number of horizontal tungsten filaments (4), two bronze electrodes on both ends of the glass (5) and the power connection electrodes (6). Features include: a nice appearance, high transparency, solid double layers, safe to use, thin heating wires, stealthy and very efficient.

Patent Rights Application

1. This is a type of motor car tungsten filament double-layered rear window. It consists of a piece of inner glass (1), a piece of outer glass (2) and the bonding membrane (3) which binds the two pieces of glass. The feature of this product is that there is an electrothermal layer between the inner glass (1) and the bonding membrane (3). The electrothermal layer consists of horizontal threads of tungsten filaments (4) and two bronze electrodes on both ends of the glass. Each tungsten filament is connected to the bronze electrodes on both ends. The gap between each tungsten filament is 2-10mm. Through the bronze electrodes, the tungsten filaments form a parallel circuit. The power is connected to the electrodes (6) located in the middle of the bronze electrodes.

Manual

Motor car tungsten filament double-layered rear window

This practical new product is a motor car electrothermal demist double-layered rear window using tungsten filaments as the electrothermal component.

Currently the most common way to produce a motor car demist rear window is to print and lay an electrothermal layer and position power electrodes on the inside of the rear window. The electrothermal layer produces heat to demist when connected to the power source. The weaknesses of this type of electrothermal demist glass include, the heating wires are too thick which affect appearance, the electricity conduction layer is on the outside of the glass which is easily scratched and cut, thus reducing the effectiveness.

The purpose of this practical new product is to overcome the above weaknesses of the electrothermal demist glass. This is achieved through electrothermal demist double-layered glass by laying an electrothermal component between two pieces of glass with very thin and stealthy electrothermal heating wires.

This practical new product comprises of a piece of inner glass, a piece of outer glass and a bonding membrane that binds together the two pieces of glass. An electrothermal layer is positioned between the inner glass and the bonding membrane. It consists of a number of horizontal tungsten filaments and two pieces of bronze electrodes located on both ends of the glass. The gap between each tungsten filament is 2-10mm. Through the bronze electrodes, the tungsten filaments form a parallel circuit. The power is connected to the electrodes located in the middle of the bronze electrodes. Features include: a nice appearance, high transparency, solid double layers, safe to use, thin heating wires, stealthy and very efficient.

Drawing illustrations: drawings 1 and 2 are the structural drawings, drawing 2 is the cutaway view of A-A.

Manufacturing application: Produce a piece of inner glass (1) and a piece of outer glass (2) according to the shape of the motor car rear window with reference to the attached drawing. Produce an electrothermal layer on the outside of the inner glass (1), lay bronze electrodes (5) on both ends, lay tungsten filaments (4) leaving a gap of 4-5mm between each tungsten filament, connect both ends of the tungsten filament to the bronze electrodes (5) with soldering tin and position power connection electrodes (6) in the middle of the bronze electrodes (5). Lay PVB bonding membrane (3) on top of the electrothermal layer. Lay a piece of outer glass (2) and complete the double-layered binding by high heat. Complete the whole process by edge polishing and connect power to the connection electrodes (6).

[19]中华人民共和国专利局

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H05B 3/84

[12] 实用新型专利说明书

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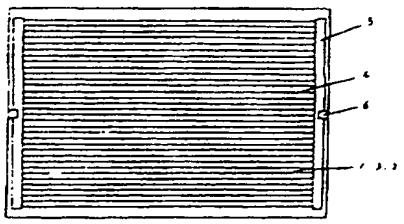
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权利要求书 1 页 说明书 2 页 附图页数 1 页

[54]实用新型名称 汽车后挡钨丝夹层玻璃

[57]摘要

本实用新型涉及一种用于汽车电热防雾的后挡钨丝夹层玻璃。由底层玻璃片（1）、外层玻璃片（2）、粘接胶膜（3）和电热层构成，电热层包括若干条水平放置的钨丝（4）和位于玻璃片两端的左右两条铜片电极（5）以及电源接入电极（6）等，电热层夹埋于底层玻璃片与粘接胶膜之间。具有美观、透明度高、夹层牢固、使用安全、电热丝条细小、隐形、电热效率高等特点。



权 利 要 求 书

1、一种汽车后挡钨丝夹层玻璃，包括底层玻璃片（1）和外层玻璃片（2），以及将两层玻璃片粘合为一体的粘接胶膜（3），其特征为：在底层玻璃片（1）与粘接胶膜（3）之间，有一电热层，电热层由一条条水平放置的钨丝（4）和位于玻璃片两端的左右两条铜片电极（5）组成，每一条钨丝的两端分别与铜片电极连接，钨丝每2～10mm排列一条，钨丝通过铜片电极连接形成并联关系，在铜片电极的中间，引出电源接入电极（6）。

说　明　书

汽车后挡钨丝夹层玻璃

本实用新型涉及一种以钨丝为电热元件，用于汽车电热防雾的后挡夹层玻璃。

目前汽车后挡防雾玻璃，最常见的是在后挡玻璃的内侧印刷、涂布电热层及制作电源电极，接通电源后，电热层发热，达到防雾的目的。这种电热防雾玻璃，存在如下缺点：一是电热线条粗，影响外观质量，二是导电层在玻璃的外面，易擦伤划断，影响使用效果。

本实用新型的目的在于克服上述电热防雾玻璃的缺点，提供一种电热元件夹埋于两片玻璃之间，且电热丝条细小、隐形的电热防雾夹层玻璃。

本实用新型，包括底层玻璃片和外层玻璃片，以及将两层玻璃粘合为一体的粘接胶膜，在底层玻璃片与粘接胶膜之间，夹埋一电热层，电热层由一条条水平放置的钨丝和位于玻璃片两端的左右两条铜片电极组成，钨丝每2～10mm排列一条，钨丝通过铜片电极连接形成并联关系，在铜片电极的中间，引出电源接入电极。

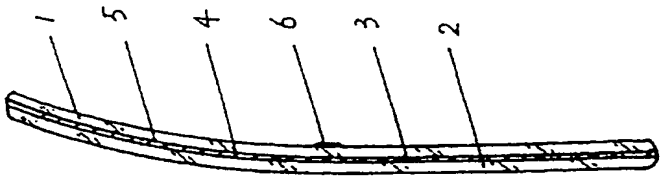
本实用新型，具有美观、透明度高、夹层牢固、使用安全、电热丝条细小、隐形、电热效率高等特点。

附图说明：图1和图2为本实用新型的结构原理图，其中图2为A-A剖视图。

实施例：参照附图，根据汽车后窗的形状，制作底层玻璃（1）和外层玻璃（2）；在底层玻璃（1）的内面上制作电热层：首先在端部上放置铜片电极（5），铺上钨丝（4），钨丝间隔为4～5mm，通过焊

锡将钨丝的两端焊接在铜片电极（5）上，在铜片电极（5）的中部，引出电源接入电极（6）；在电热层的上面铺上PVB粘接胶膜（3），合上外层玻璃（2），经高温定型工艺完成夹层粘接；再经修边、制作电源接入电极（6），即成。

说 明 书 附 图



A—A

图 2

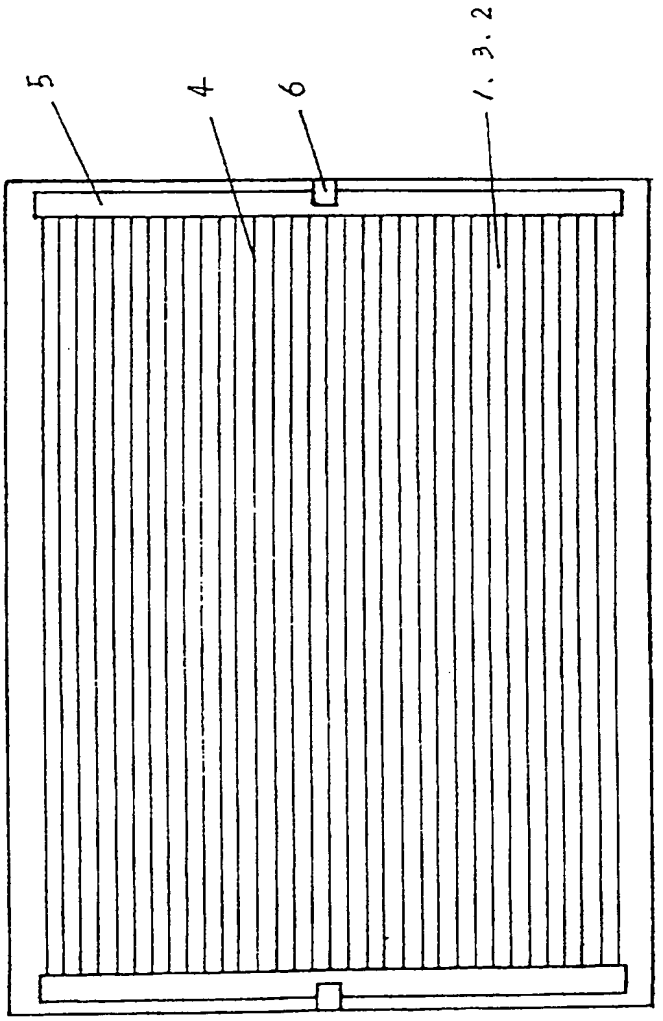


图 1